

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) An apparatus for manufacturing liquid crystal display (LCD) devices, comprising:

at least one substrate bonding station for bonding a first substrate having a sealant thereon and a second substrate having a liquid crystal thereon, wherein the substrate bonding station includes first and second sides;

at least one loader arranged at the first side of the substrate bonding station for loading the unbonded first and second substrates into the substrate bonding station;

at least one unloader arranged at the second side for unloading the bonded first and second substrates, wherein the substrate bonding station includes third and fourth sides, wherein the third side is proximate the fourth side;

a plurality of hardening stations for hardening a sealant material arranged between the bonded ones of the first and second substrates, wherein the plurality of hardening stations are arranged proximate the fourth side of the at least one unloader and wherein the at least one loader loads the bonded ones of the first and second substrates into the plurality of hardening stations; and

a sealing member wherein the sealing member thickness is set according to a pressure applied to the first and second glass substrates,

wherein the at least one substrate bonding station includes upper and lower chamber units each having a flat surface facing each other, and the sealing member is provided on the flat surface of the at least one of the upper and lower chamber units.

2. (Cancelled)

3. (Currently Amended) The apparatus according to claim [[2]] 24, wherein the plurality of substrate bonding stations are arranged substantially parallel to each other.

4. (Currently Amended) The apparatus according to claim ~~[[2]]~~ 24, wherein the at least one loader includes a plurality of loaders.

5. (Previously Presented) The apparatus according to claim 4, wherein the plurality of loaders are arranged substantially parallel to each other.

6. (Original) The apparatus according to claim 4, wherein each loader loads the unbonded substrates into a single substrate bonding station.

7. (Original) The apparatus according to claim 6, wherein each loader loads the unbonded substrates into a plurality of substrate bonding stations.

8. (Currently Amended) The apparatus according to claim ~~[[2]]~~ 24, wherein the at least one unloader includes a plurality of unloaders.

9. (Previously Presented) The apparatus according to claim 8, wherein the plurality of unloaders are arranged substantially parallel to each other.

10. (Original) The apparatus according to claim 8, wherein each unloader unloads the bonded substrates from a single substrate bonding station.

11. (Original) The apparatus according to claim 10, wherein each unloader unloads the bonded substrates from a plurality of substrate bonding stations.

12 -13. (Canceled)

14. (Currently Amended) The apparatus according to claim ~~[[13]]~~ 1, wherein the ~~at least a~~ plurality of hardening stations are arranged substantially parallel to each other.

15. (Currently Amended) The apparatus according to claim [[13]] 1, wherein each unloader loads the bonded substrates into a single hardening station.

16. (Currently Amended) The apparatus according to claim [[12]] 1, wherein a one-to-one correspondence exists between the at least one hardening station and the at least one loader.

17. (Currently Amended) The apparatus according to claim [[12]] 1, wherein the at least one hardening station directs UV light to the sealant material.

18. (Currently Amended) The apparatus according to claim [[12]] 1, wherein the at least one hardening station directs heat to the sealant material.

19. (Currently Amended) The apparatus according to claim 1, wherein the at least one substrate bonding station includes:

[[a]] the lower chamber unit including openings in the first and second sides;

[[an]] the upper chamber unit including openings in the first and second sides, the upper chamber unit being raiseable and lowerable with respect to the lower chamber unit being and joinable to the lower chamber unit;

an upper stage fixed to the upper chamber unit for securing the unbonded first substrate;

a lower stage fixed to the lower chamber unit for securing the unbonded second glass substrate; and

wherein the sealing member is ~~provided on a surface of at least one of the upper and lower chamber units for sealing~~ seals an interior space surrounding the first and second substrates, wherein the sealed interior space is definable by joined ones of the upper and lower chamber units.

20. (Withdrawn) A method of display device, comprising:

providing unbonded first and second substrates;

loading the unbonded first and second substrates through a first side of a bonding station;

bonding the loaded first and second substrates within the bonding station; and

unloading the bonded first and second substrates from the bonding station through a second side, different from the first side.

21. (Withdrawn) A method of manufacturing a liquid crystal display (LCD) device, comprising:

preparing a first substrate and a second substrates;

a first loading process including the steps of:

moving a lifting system along a first direction to a first position;

placing the first substrate on the lifting system;

moving the lifting system along a second direction to a second position; and

placing the first substrate on an upper surface of a lower stage, wherein the substrate is positioned over the lifting system before the lifting system is moved along the first direction; and

a second loading process including the steps of:

placing the second substrate on a lower surface of an upper stage, wherein the second loading process is performed before the first loading process;

moving at least one of the upper stage along the second direction and the lower stage along the first direction;

performing an alignment process to certify alignment of the first and second substrate;

and

bonding the first substrate and the second substrate together, wherein said moving includes extending the lifting system along the first direction to raise the bonded first and second substrates from the lower stage; and

removing the bonded first and second substrate from the lifting system, and

wherein the thickness of the bonded first and second substrates is substantially uniform over the entire surface area of the substrates.

22. (Currently Amended) The apparatus according to claim ~~[[2]]~~ 24, wherein the number of the plurality of bonding stations equals a number of loaders.

23. (Currently Amended) The apparatus according to claim ~~[[2]]~~ 24, wherein the number of the plurality of bonding stations equals a number of unloaders.

24. (New) The apparatus according to claim 1, wherein the at least one substrate bonding station includes a plurality of substrate bonding stations.